

BOOK REVIEWS

Fassett's The Leguminous Plants of Wisconsin*

H. N. MOLDENKE

Here is a fine book by a careful and thorough worker. A great many more similar works are sadly needed before we will have any clear and accurate conception of the flora of North America, and it is to be hoped that Dr. Fassett will contribute at least some of these. While the present contribution deals officially only with the leguminous plants of Wisconsin, a great amount of information about the 97 distinct recognized species and varieties of this state, is included which is of great interest to workers in other regions, including our own. Outline maps are included showing the known distribution of each species in Wisconsin, while other maps show the known distribution throughout North America, including, of course, the Torrey Botanical Club range. The material preserved in the herbaria of 24 institutions forms the basis of these maps and it is a distinct relief to see here a worker who does not content himself with examination of the material in only one or two herbaria. The 24 plates and 59 text figures are excellent in every respect, and are exceedingly well chosen to illustrate the salient points of difference between genera and species so often missed in more pretentious descriptions or illustrations. No less than five separate keys to the treated genera and species are included: one based on vegetative characters, one based on flowers, one based on fruit, one based on seeds, and one based on epidermal outgrowths. The value of such a system of multiple keys will be apparent at once to everyone who has attempted to identify plants either in the field or from material sent in by amateur collectors, when the plants are either not in flower or fruit or the material sent is very fragmentary.

It is also a distinct relief to the reviewer to note that Dr. Fassett apparently still holds to the old concept of varieties and forms as distinct from the species proper and does not adopt the

* The Leguminous Plants of Wisconsin. The Taxonomy, Ecology, and Distribution of the *Leguminosae* Growing in the State without Cultivation, by Norman C. Fassett, with drawings by Richard I. Evans and a study of epidermal outgrowths by Catherine Mose. University of Wisconsin Press. i-xiii. 1-157. 24 plates. 59 figs. 1939. \$3.

trinomial system of nomenclature so general among zoologists and becoming, alas, more and more prevalent among botanists, wherein the species is considered to be sum of all its varieties and forms and the specific name is repeated or a "var. *typica*" is added to every species in which varieties or forms have been segregated,—a decided step back toward the polynomial nomenclature from which Linnaeus' binomial system attempted to save us. Thus, Dr. Fassett has a map for *Amorpha canescens* and also one for *A. canescens* f. *glabrata*, and one for *Tephrosia virginiana* and one for *T. virginiana* var. *holosericea*.

A statement on page 36 is worthy of emphasis. The author notes there that he is unable to present maps for the various species of *Trifolium*, *Melilotus*, and *Medicago* because these genera, being in large part roadside weeds escaping from cultivation, have been less systematically collected and are therefore more poorly represented in herbaria than are native members of the family. This illustrates well one of the unfortunate results which obtain when collectors insist on collecting only the scarce or native plants and do not condescend to collect introductions and weeds. Because of this practice and the equally general practice of herbaria to refuse to retain specimens of common plants or weeds which are sent in, we actually know far less about the introduction, spread, and distribution of weeds and common plants than we do of the scarce or rare native ones. To keep the picture balanced collectors should collect *all* the plants of a region in which they are working and herbaria should retain *all* plants, whether rare or common, native or introduced, wild or cultivated, which are sent in.

Several changes in nomenclature brought out in this work will be of interest to students in the Torrey Botanical Club area. The plant which we have been so generally calling *Desmodium grandiflorum* or *Meibomia grandiflora* should be known as *D. acuminatum* (Michx.) DC. The plant we have been calling *Lathyrus maritimus* should be *L. japonicus* var. *pellitus* Fernald and var. *glaber* (Seringe) Fernald. The plant we have been calling *Apis tuberosa* or *A. apios* is actually *A. americana* Med., while our hog-peanut, known hitherto as *Amphicarpa monoica* or *Falcata comosa*, should, under the present International Rules of Nomenclature, be known as *A. bracteata* (L.) Fernald.

Interesting varieties and forms of plants common in our

area are described in this work and members of the Club in our area ought to be on the watch for them. Among these are *Gleditsia triacanthos* f. *inermis*, *Lupinus perennis* var. *occidentalis*, *Tephrosia virginiana* var. *holosericea*, *Desmodium nudiflorum* f. *foliolatum* and f. *personatum*, *Amphicarpa bracteata* var. *comosa*, and pale-flowered and white forms of *Trifolium pratense*.

Muenscher's Poisonous Plants of the United States*

G. T. HASTINGS

Plants that we have regarded as friendly, or at least as harmless, are revealed in this book by Professor Muenscher of Cornell University as treacherous enemies that may injure us or our domestic animals. The first section of the book deals with the nature of plant poisons, classifying them as skin irritants, as the cause of photosensitization in animals that eat them, cyano-genetic plants, seleniferous plants, or of half a dozen other types. By far the greater part of the book is taken up with descriptions of several hundred plants known to be poisonous—"all the vascular plants of the United States known to cause poisoning when eaten, by contact, or by mechanical injury to man or animals are included." The arrangement is botanical, by orders and genera. For each plant the botanical characters, range, poisonous principle, symptoms of poisoning and treatment is given. About a hundred plants are listed as causing dermatitis, but only a dozen of these affect many people. Others such as ailanthus, Queen Ann's lace or wild carrot, buttercups, Alsike clover, and sheep sorrel, are troublesome to only a few people or under unusual conditions. Possibly if it were generally known that Cypripediums cause dermatitis very frequently, it would help in conserving these beautiful flowers. The prevention of poisoning by the species of *Rhus* and the treatment to be followed after poisoning are given in detail.

Many of the plants described poison animals that eat them, but are rarely eaten if other food is available, and the great majority are seldom or never eaten by man. It is surprising to find sorghum, lily of the valley, iris, marsh marigold, Dutch-

* Poisonous Plants of the United States. Walter Conrad Muenscher. xvii+266 pages. 75 plates. The Macmillan Co. 1939. \$3.50.